

## REMARKS

With this paper, Claims 1-51 and 53 have been canceled. Claim 52 is currently amended. It is believed that the amendments to Claim 52 are fully disclosed and enabled by the specification as filed and do not add new matter.

### Claim Objections

#### 35 USC §101

The Examiner has indicated at page 2 of the Official Action mailed March 5, 2004 in the line immediately following the "Claim Objections" subsection heading, that claims 36-37 and 51-53 are rejected under 35 USC §101, alleging that the claims contain limitations, referred to by the Examiner as "data", such as SEQ ID NO:'s that are considered to be nonfunctional descriptive material, and that the claims are directed to non-statutory subject matter because they appear to lack any physical result performed outside of the computer. However, the Examiner also has indicated in the last three lines of this subsection at page 4 that Claim 52 is not included within the scope of this rejection. It is believed that one of these remarks is in error, and so clarification by the Examiner is requested. With this response, Claims 36-37 and 53 have been cancelled, and so it is believed that the §101 rejection as to Claims 36-37 and 53 is obviated.

Notwithstanding that the rejection under §101 as to the remaining claim 52 is believed to be in error, it is also respectfully believed to be unfounded, in particular in view of the amendments to the claim as provided with this response. It is believed that the nucleotide sequences as set forth in SEQ ID NO:1 through SEQ ID NO:8283, when provided in digital format on a computer readable medium, are useful by the skilled artisan at least (1) for determining whether there are similarities, differences, and/or identities between the sequences provided and any other query sequence, and (2) for determining whether a sequence identified from a *Bacillus thuringiensis* bacterium is a *Bacillus thuringiensis* plasmid DNA sequence because of its absence from the sequences set forth in SEQ ID NO:1 through SEQ ID NO:8283. It is believed that the composition as claimed is statutory under §101 because the composition claims a computer related process (comparison of nucleotide sequences on two different computer readable media and the subtraction from one of any sequences determined to be identical to the sequences on the other) that results in a physical transformation outside of the computer (elimination of sequences from the data storage structure that are determined to be in common between the data sets) for which a practical application in the technological arts is

disclosed in the specification (the identification of *Bacillus thuringiensis* plasmid DNA sequences).

It is respectfully requested therefore, that the rejection under 35 USC §101 be withdrawn.

#### 35 USC §112 First Paragraph

##### Lack of Written Description

The Examiner has rejected Claim 52 as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor, at the time of the invention was filed, had possession of the claimed invention, in particular because the specification lacked any support for the words or phrases “total DNA”, “first computer readable medium”, or “second computer readable medium”. These limitations have been removed from the claim, and the claim amended to recite “computer readable medium”, and “data storage structure”. It is believed that the specification provides sufficient guidance as to the meaning of these words and phrases throughout the specification, as well as the concept that two storage media are used and the data therein compared and data in one of the storage media then removed to result in a data set that has eliminated sequences in common between the two storage media. Therefore, it is believed that this rejection has been obviated, and it is respectfully requested that the Examiner withdraw this grounds of rejection.

##### Lack of Enablement

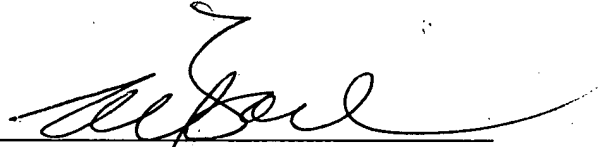
The Examiner has rejected Claim 52 as lacking sufficient enablement. It is believed that the Examiner’s reasoning is flawed. The Examiner suggests that the comparison to be completed is between DNA of any species with DNA of a *Bacillus* species. That is fundamentally not what is being claimed. The correct comparison is believed to now be set forth in Claim 52. The correct comparison is between all DNA sequences present within a *Bacillus thuringiensis* species and the DNA sequences disclosed in the present application. The sequences disclosed in the present application are sequences from a *Bacillus thuringiensis* species that lacks plasmid DNA. A comparison between the DNA of other *Bacillus thuringiensis* species and the *Bacillus thuringiensis* sequences disclosed in the present application would enable the identification of sequences for which there is no match, and those sequences for which there is no match are identified in the specification as being *Bacillus thuringiensis* plasmid DNA sequences.

Thus, it is believed that the specification provides sufficient evidence necessary to support such allegations. Therefore, it is respectfully requested that the Examiner remove this grounds of rejection.

35 USC §103

The claims which the Examiner has indicated are within the scope of this 35 USC §103 rejection have been removed with this response, and so it is believed that this grounds of rejection has been obviated. Therefore, it is respectfully requested that this grounds of rejection be withdrawn.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Timothy K. Ball', is written over a horizontal line.

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